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**TMS 2025**  
154<sup>th</sup> Annual Meeting & Exhibition



**March 23–27, 2025**  
MGM Grand Las Vegas  
Hotel & Casino  
Las Vegas, Nevada, USA  
#TMSAnnualMeeting



## SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2025 SYMPOSIUM:

### BIOMATERIALS

## Natural Fibers and Biocomposites: A Sustainable Solution

Natural fibers' abundance, excellent properties, biodegradability, and low cost make this renewable resource a green alternative to synthetic fibers for composite material reinforcement. There has been an increase in research and industrial attention for using natural fibers since they can reduce the net CO<sub>2</sub> footprint compared to traditional synthetic materials, given their carbon dioxide absorption while growing. Biocomposite materials with natural fibers are mainly developed with polymer matrices. The need to create sustainable solutions and, more critically, biodegradable or biocompatible has promoted applications in sports, transportation, armor, medicine, infrastructure, construction and building materials, and architecture. The purpose of this symposium is to promote the use of natural materials and their composites as a possible strategy to increase environmental sustainability, as well as to study materials fundamentals for new applications.

The main areas are shown below but are not limited to:

- Natural fibers, its properties, and fundamentals
- Surface modifications of natural fiber to improve properties
- Biocomposite materials and potential contributions to sustainability
- Durability, dynamic behavior, adhesion, impact response, mechanical, thermal, and other important properties related to the natural materials and their composites

### ORGANIZERS

**Henry Colorado**, Universidad de Antioquia; **Sergio Monteiro**, Instituto Militar de Engenharia; **Marc Meyers**, University of California, San Diego; **Carlos Castano Londono**, Virginia Commonwealth University; **George Youssef**, San Diego State University; **Felipe Perisse Duarte Lopes**, Universidade Estadual do Norte Fluminense; **Daniel Salazar**, BCMaterials

### SYMPOSIUM SPONSORS

TMS Functional Materials Division, TMS Structural Materials Division, TMS Biomaterials Committee, TMS Composite Materials Committee

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### QUESTIONS?

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